lysine and 0.70% Ca. Pigs were housed individually with ad libitum access to water and fed at 3.25 times maintenance daily. At the end of the 34-d study, all pigs were killed, the femurs excised, and the feet removed to collect the 3rd and 4th metacarpals and metatarsals. Bone breaking strength was determined and the metacarpals were dried and ashed. Increasing levels of MSP increased (linear, $P < 0.04$) ADG, ADFI, G:F, P intake. Bone breaking strength (129, 146, 175, 165, 162, 163, 160 kg) was increased (linear, $P < 0.01$) by MSP and DDGS addition. DDGS had no effect ($P > 0.10$) on performance or bone traits as compared to the high MSP diet. Also, there were few differences ($P > 0.10$) between corn and sorghum DDGS. Bone strength was regressed on added P intake, and the availability of P was determined based on slope ratio. Bioavailability of P was approximately 77% in corn DDGS and 69, 70, and 64% in the three sorghum DDGS. These results suggest that the bioavailability of P in DDGS is relatively high; however, the bioavailability of P varied among DDGS sources.

Key Words: Distillers Dried Grains, Pig, Phosphorus

220 Determination of P bioavailability in corn and sorghum distillers dried grains with solubles for growing pigs. S. Jenkin*[1], S. Carter[1], J. Bundy[1], M. Lachmann[1], J. Hancock[2], and N. Cole[3], [1]*Oklahoma State University*, *Stillwater*, [2]*Kansas State University*, *Manhattan*, [3]*USDA/ARS.*

A total of 35 barrows (29.6 kg BW) were used in a 34-d study to determine the effects of corn or sorghum distillers dried grains with solubles (DDGS) on growth performance, bone traits, and P bioavailability. One corn and three sorghum DDGS were each collected from different processing plants. Pigs were blocked by weight, ancestry, and randomly allotted to one of seven dietary treatments with five pigs/treatment. The basal diet was a fortified corn starch-dextrose-soybean meal diet which was adequate in all nutrients except P. This diet contained 0.3% total P, which was provided by soybean meal and monosodium phosphate (MSP). Treatments were the basal, the basal plus MSP to provide 0.075 and 0.15% added P, and the basal plus corn DDGS or the three sorghum DDGS to provide 0.15% P. The corn DDGS contained 0.79% P and the three sorghum DDGS contained 0.80, 0.66, 0.69% P, respectively. All diets were formulated to 1.05%